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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,844	04/02/2001	Sailaja S.K. Attili	CSCO-007/92821	1164

26392 7590 05/26/2005

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EXAMINER

STRANGE, AARON N

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/824,844

Applicant(s)

ATTILI ET AL.

Examiner

Aaron Strange

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. The supplemental amendment filed on 4/1/2005 has been entered and considered by the Examiner prior to this Office action.
2. The declarations filed on 3/18/2005 under 37 CFR 1.131 has been considered but is ineffective to overcome the Barrett reference (US 2003/0135644).
3. It appears that applicant intends to show invention of the claimed subject matter prior to the Jan. 24, 2001 date established by US Patent Application Publication 2003/0135644, to Mark A Barrett, by showing conception of the invention prior to Jan. 24, 2001 coupled with due diligence from prior to Jan. 24, 2001 to the filing date of the present application, April 2, 2001.

**I. Formalities**

4. The objection raised in the Office action of 12/28/04 regarding the prior affidavit submitted by Srindhar Aswathnarayan is now moot in view of the newly submitted declaration by Srindhar Aswathnarayan, since Applicant is no longer relying on that affidavit as evidence of to establish conception and/or diligence. It is hereby withdrawn.

## II. Conception

5. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Barrett reference (1/24/2001). While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897).

6. The affidavit or declaration and exhibits must clearly explain which facts or data Applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts to essentially a mere pleading, unsupported by proof or a showing of facts", and, thus, does not satisfy the requirements of 37 CFR 1.131(b). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied upon by applicant. (See MPEP 715.07, 1).

7. With further regard to exhibit D, the description of the document is insufficient. Applicant merely cites large sections of the document and alleges that those sections demonstrate that "we had conceived of a system and method for tracing layer-2 route in networks based on broadcast medium" (Par. 3 of inventor declarations). Applicant must

give a clear explanation of the exhibits, pointing out exactly what facts are established and relied upon by Applicant. (SEE MPEP 715.07). It should be noted that Applicant must show conception of the claimed invention, and a general assertion that Applicant conceived of a similar system is not sufficient.

8. With further regard to exhibit D, while section 3.0 of the exhibit appears to be similar in content to claim 1, no explanation regarding this section is made to relate it to claim 1 or any other claim. For example, the exhibit uses several terms that do not appear in the claims, such as EARL table, l2trace, mac address, and Catalyst switch. It is unclear how these elements relate to the elements in claim 1, if at all. It appears that section 3.0 may provide evidence regarding conception of at least claims 1 and 12 given sufficient description. However, it is unclear which sections, if any, show the subject matter of claims 39-45. The document appears to be describe a software application, and contains no description of devices containing interfaces, next hop blocks, and/or generate request/response blocks or any of the components claimed in claims 40-45. The description currently provided by applicant does not allow a complete analysis of the fact in order to determine conception without requiring speculation as to the meaning and content of the document.

9. With further regard to exhibit D, and step 3 in section 3.0. Step 3 recites "If C1 cannot detect the neighbor IP address on c1b or if the device connected to c1b is not a Catalyst switch of the series C5000 or C6000, l2trace will be aborted with appropriate

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error message” (emphasis added). This clearly shows that at the time exhibit D was created, the system only worked if the devices were Catalyst switches of the series C5000 or C6000. While the specification of the present application mentions an embodiment in which the devices are Catalyst 5000/6000 switches, no reference to Catalyst switches of the series C5000 or C6000 appears in the claims. In fact, the claims refer to “any intermediate layer-2 device”. Therefore, exhibit D, at most, could only be used to show conception of one embodiment disclosed, but not claimed, of the present application.

10. For at least the reasons cited above, the declarations are inadequate to establish conception prior to January 24, 2001.

## II. Diligence

11. In determining the sufficiency of a 37 CFR 1.131 declaration/affidavit, diligence need not be considered unless conception of the invention prior to the effective date is clearly established, since diligence comes into question only after prior conception is established. (See MPEP 715.07(a)).

12. However, in the interest of compact prosecution, the Examiner notes the following deficiencies. It should be noted that these remarks are designed to assist the Applicant and should not necessarily be considered comprehensive.

13. With regard to the declarations from Sailaja S K Attili and Sridhar Aswathnarayan, section 4 amounts to a mere assertion of diligence. Applicant is reminded that diligence requires that Applicants must be specific as to dates and facts for the entire period during which diligence is required. No dates between Jan 24, 2001 and April 2, 2001 appear in the statement of diligence with regard to when the alleged events took place, and no evidence is provided in support of such an assertion.

An applicant must account for the entire period during which diligence is required. *Gould v. Schawlow*, 363 F.2d 908, 919, 150 USPQ 634, 643 (CCPA 1966) (Merely stating that there were no weeks or months that the invention was not worked on is not enough.); *In re Harry*, 333 F.2d 920, 923, 142 USPQ 164, 166 (CCPA 1964) (statement that the subject matter "was diligently reduced to practice" is not a showing but a mere pleading). A 2-day period lacking activity has been held to be fatal. *In re Mulder*, 716 F.2d 1542, 1545, 219 USPQ 189, 193 (Fed. Cir. 1983) (37 CFR 1.131 issue); *Fitzgerald v. Arbib*, 268 F.2d 763, 766, 122 USPQ 530, 532 (CCPA 1959).

14. With regard to the declaration from Narendra R. Thappeta, the statements amount to a mere assertion of diligence. Applicant is reminded that diligence requires that Applicants must be specific as to dates and facts for the entire period during which diligence is required. No dates between Jan 24, 2001 and April 2, 2001 appear in the statement of diligence with regard to when the alleged events took place, and no evidence is provided in support of such an assertion. For relying on attorney diligence, see MPEP 2138.06, page 2100-119 of MPEP Rev.2 May 2004.

***Claim Rejections - 35 USC § 112***

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claims 8,9,32, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

17. With regard to claims 6 and 30, the limitation "performed in said receiving device" is unclear, since sending and receiving are not internal operations. The Examiner recommends that the claim be amended to recite "performed by said receiving device".

18. Claims 8 and 32 recite the limitation "said receiving device" in lines 2 and 4 of each claim. There is insufficient antecedent basis for this limitation in the claim.

19. All claims not individually rejected are rejected by virtue of their dependency from the above claims.

***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 1-3, 5-19, 21-28, 30-43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett (2003/0135644) in view of Wang et al. (US 6,538,997).

22. Claims 4,20,29, and 44 rejected under 35 U.S.C. 103(a) as being unpatentable over Barrett (2003/0135644) in view of Wang et al. (US 6,538,997) in further view of Murhammer et al.

23. Since the claims have not been amended, and declarations submitted by Applicant are ineffective, the above rejections under 35 U.S.C. 103(a), presented in the Office action of 12/28/2004, are **MAINTAINED**.

24. Claims 1-7,9-13,17-22,26-32,39,42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 6,538,997) in view of Welcher ("Discovering Cisco Discovery Protocol").

25. With regard to claims 1,17, and 26, Wang discloses a method of processing a command requesting information on any intermediate layer-2 devices in a route from a first system to a second system, said any intermediate devices being contained in a

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network implemented on a broadcast medium, said network containing a plurality of devices including said any intermediate devices, said method comprising:

receiving said command (Col 5, Line 31);

determining a first layer-2 device which is connected directly to said first system logically viewing said first layer-2 device as a present layer-2 device if said second system is not also directly connected to said first layer-2 device (Col 7, Lines 61-67);

sending a request packet to said present layer-2 device requesting information on whether said second system is connected directly to said present layer-2 device (Col 7, Lines 61-67);

receiving a response packet from said present layer-2 device, wherein said response packet further identifies a subsequent layer-2 device (Col 9, Lines 46-47) in a route to said second system if said second system is not connected directly to said present layer-2 device, wherein said subsequent layer-2 device is next to said present layer-2 device in said route to said second system (Col 7, Lines 41-51); and

repeating said sending and receiving by using said subsequent layer-2 device in the place of said present layer-2 device until said response packet indicates that said second system is said present layer-2 device (Col 8, lines 14-18). However, Wang fails to specifically disclose that said response packet indicates whether said second system is connected directly to said present layer-2 device.

Welcher discloses a protocol for discovering information about devices connected to bridges and switches (layer-2 devices). This allows an SNMP management application to learn addresses and device types of neighboring devices. This would

have allowed the layer-2 devices to provide information about their neighbors without requiring them to forward a request to the neighbors during a trace, thereby reducing the network traffic required to perform a layer-2 trace.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the protocol taught by Welcher in Wang's system and have response packets include information about the direct neighbors of the layer-2 devices since it would have reduced the network traffic and time required to perform a trace between two devices on the network.

26. With regard to claims 2,3,18,19,27 and 28, Wang further discloses locating a directly connected device which is connected directly to said first system; using said directly connected device as said present device; performing said repeating to determine said route substituting said receiving device as said first device; and performing said repeating to determine said directly connected device (ripple search method) (Col 7, Lines 41-51).

27. With regard to claims 4,20,29, and 44, Wang further discloses tracing multicast paths (Col 4, Lines 1-2).

28. With regard to claims 5 and 30, Wang further discloses that said determining, sending, receiving, and repeating are performed in a receiving device (Col 7, Lines 41-51).

29. With regard to claims 6,31, and 42, Wang further discloses providing a command line interface to enable a network administrator to enter said command on said receiving device (Col 5, Lines 28-29) as an alternative to a GUI (Col 6, Lines 14-16).

30. With regard to claims 7 and 32, Wang further discloses that said second system is deemed to be directly connected to said first layer-2 device if said second system is connected to a port of said first layer-2 device (Col 9, Lines 46-47).

31. With regard to claim 9, Wang further discloses that said network is implemented using Ethernet/802.3 protocol (Col 8, Lines 19-25).

32. With regard to claim 10, Welcher further discloses that said request packet and said response packet are generated consistent with UDP/IP protocol (SNMP uses UDP) (Page 1, Line 17).

33. With regard to claim 11, Wang further discloses that said determining, sending, receiving, and repeating are performed in a computer system (Col 7, Lines 41-51).

34. With regard to claims 12, 21,35 and 39, Wang discloses a method of tracing a route containing a sequence of layer-2 devices between a first system (transmitting

node) and a second system (receiving node), said method being performed in a device forming a part of a network, said method comprising:

receiving in said device a request packet containing an identifier for said second system, wherein said request packet requests information on whether said second system is said device (Col 7, Lines 61-67);

determining in said device whether said device is said second system (Col 8, Lines 14-18);

generating in said device a response packet, wherein said response packet indicated whether said device is said second system (Col 8, Lines 14-18);

and sending from said device said response packet (Col 8, Lines 14-18).

However, Wang fails to specifically disclose that said response packet indicates whether said second system is connected directly to said present layer-2 device.

Welcher discloses a protocol for discovering information about devices connected to bridges and switches (layer-2 devices). This allows an SNMP management application to learn addresses and device types of neighboring devices. This would have allowed the layer-2 devices to provide information about their neighbors without requiring them to forward a request to the neighbors during a trace, thereby reducing the network traffic required to perform a layer-2 trace.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the protocol taught by Welcher in Wang's system and have response packets include information about the direct neighbors of the layer-2

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devices since it would have reduced the network traffic and time required to perform a trace between two devices on the network.

35. With regard to claims 13,22, and 36, Wang further discloses that said generating further comprises: identifying in said device a next device, wherein said next device is next to said device in a route from said first system to said second system; and including data identifying said next device in said response packet (first packet is directed to the first neighbor of the trace originator)(Col 7, Lines 61-67).

### ***Conclusion***

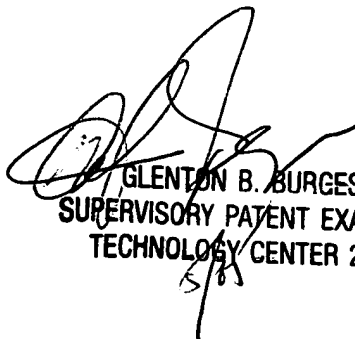
36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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AS  
5/18/2005



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